GENERAL STUDIES COURSE PROPOSAL COVER FORM

Course information:

*Copy and paste **current** course information from* Class Search/Course Catalog.

Academic Unit	Ira A. Fulton Schools of Engineering		Department	Computing, Informatics, and Decision Systems Engineering, Computer Science		

Subject	**CSE**	Number	**486**	Title	Computer Science Capstone Project II	Units: 3

Is this a cross-listed course?
If yes, please identify course(s)   No

Is this a shared course?   No   If so, list all academic units offering this course

Course description:
Second course in capstone sequence for computer science majors continuing the development, process, technical skills, teamwork and communication.

Requested designation: Literacy and Critical Inquiry–L
*Note- a **separate** proposal is required for each designation requested*

Eligibility:

Permanent numbered courses must have completed the university's review and approval process.
For the rules governing approval of omnibus courses, contact Phyllis.Lucie@asu.edu or Lauren.Leo@asu.edu.

Submission deadlines dates are as follow:

For Fall 2015 Effective Date: October 9, 2014   For Spring 2016 Effective Date: March 19, 2015

Area(s) proposed course will serve:

A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

Checklists for general studies designations:
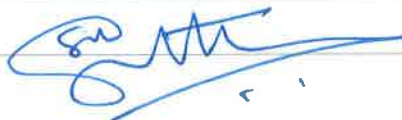
Complete and attach the appropriate checklist

- Literacy and Critical Inquiry core courses (L)
- Mathematics core courses (MA)
- Computer/statistics/quantitative applications core courses (CS)
- Humanities, Arts and Design core courses (HU)
- Social-Behavioral Sciences core courses (SB)
- Natural Sciences core courses (SQ/SG)
- Cultural Diversity in the United States courses (C)
- Global Awareness courses (G)
- Historical Awareness courses (H)

A complete proposal should include:

☒ Signed General Studies Program Course Proposal Cover Form
☒ Criteria Checklist for the area
☒ Course Catalog description
☒ Course Syllabus
☒ Copy of Table of Contents from the textbook and list of required readings/books

Respectfully request that proposals are submitted electronically with all files compiled into one PDF. If necessary, a hard copy of the proposal will be accepted.

Contact information:

Name	Dr. Debra Calliss		Phone	965-1727
Mail code	8809		E-mail:	debra.calliss@asu.edu

Department Chair/Director approval: *(Required)*

Chair/Director name (Typed):   Dr. Sandeep Gupta   Date: February 5, 2015

Chair/Director (Signature):

Arizona State University Criteria Checklist for
Proposer: Please complete the following section and attach appropriate documentation.

ASU - [L] CRITERIA			
TO QUALIFY FOR **[L]** DESIGNATION,THE COURSE DESIGN MUST PLACE A MAJOR EMPHASIS ON COMPLETING CRITICAL DISCOURSE--**AS EVIDENCED BY THE FOLLOWING CRITERIA:**			
YES	**NO**		**Identify Documentation Submitted**
☐	☐	**CRITERION 1:** At least 50 percent of the grade in the course should depend upon writing assignments (see Criterion 3). Group projects are acceptable only if each student gathers, interprets, and evaluates evidence, and prepares a summary report. *In-class essay exams may not be used for [L] designation.*	CSE486 Syllabus

1.   Please describe the assignments that are considered in the computation of course grades--and indicate the proportion of the final grade that is determined by each assignment.

Individual work:
* Technical presentation 15%
* Professional responsibility essay 10%
* Project summary report (draft and final versions) 25%

Details on the work are included CSE486 Description of Student Work.

2.   **Also:**

Please **circle, underline, or otherwise mark** the information presented in the most recent course syllabus (or other material you have submitted) that verifies **this description** of the grading

C-1

☐	☐	**CRITERION 2:** The writing assignments should involve gathering, interpreting, and evaluating evidence. They should reflect critical inquiry, extending beyond opinion and/or reflection.	CSE 486 Description of Student work

ASU - [L] CRITERIA

1. Please describe the way(s) in which this criterion is addressed in the course design.

   Students have are required to gather, interpret, and evaluate evidence in the following work.
   - Technical presentation where students must research a topic, write a presentation and then deliver the presentation to the class.
   - Project summary report (draft and final versions) where students review and critique the work done by their team, evaluate the results and then write a summary of the work.
   - Essay where students must research a current event involving computing professional responsibility, apply critical thinking and write an essay discussing the event as well as the requirements of a computing professional as presented in a computing code of ethics.

   Details on the work are included CSE486 Description of Student Work.

2. **Also:**

   Please **circle, underline,** or **otherwise mark** the information presented in the most recent course syllabus (or other material you have submitted) that verifies **this description** of the grading

   C-2

		CRITERION 3: The syllabus should include a minimum of two writing and/or speaking assignments that are substantial in depth, quality, and quantity. Substantial writing assignments entail sustained in-depth engagement with the material. Examples include research papers, reports, articles, essays, or speeches that reflect critical inquiry and evaluation. Assignments such as brief reaction papers, opinion pieces, reflections, discussion posts, and impromptu presentations are not considered substantial writing/speaking assignments.	CSE 486 Description of Student work
☐	☐		

1. Please provide relatively detailed descriptions of two or more substantial writing or speaking tasks that are included in the course requirements

   Students have substantial writing and speaking tasks in the following work.
   - Technical presentation where students must research a technical topic related to computing, write a presentation and then deliver the presentation to the class.
   - Professional responsibilities paper where students write a 5-6 page essay on an issue in computing ethics and the responsibilities of a computing professional
   - Project summary report (draft and final versions) where students review and critique the work done by their team, evaluate the results and then write a summary of the work. The expected length of the report is 20-25 pages.

   Details on the work are included CSE486 Description of Student Work.

ASU - [L] CRITERIA

2. **Also:**	

Please **circle, underline,** or **otherwise mark** the information presented in the most recent course syllabus (or other material you have submitted) that verifies **this description** of the grading

C-3

ASU - [L] CRITERIA

YES	NO		Identify Documentation Submitted
☐	☐	**CRITERION 4:** These substantial writing or speaking assignments should be arranged so that the students will get timely feedback from the instructor on each assignment in time to help them do better on subsequent assignments. *Intervention at earlier stages in the writing process is especially welcomed.*	CSE 486 Description of Student work

1. Please describe the sequence of course assignments--and the nature of the feedback the current (or most recent) course instructor provides to help students do better on subsequent assignments

   Feedback is provided to the student in all work. The project summary report is delivered in a draft form and then a final version. Feedback on the draft is provided in time for the students to improve on the final version. In addition, as this is a two semester sequence, feedback from the first semester presentations can be used to help students improve their presentation skills for the second semester.

2. **Also:**

Please **circle, underline,** or **otherwise mark** the information presented in the most recent course syllabus (or other material you have submitted) that verifies **this description** of the grading

C-4

Course Prefix	Number	Title	General Studies Designation
CSE	486	Computer Science Capstone Project II	L

Explain in detail which student activities correspond to the specific designation criteria.
Please use the following organizer to explain how the criteria are being met.

Criteria (from checksheet)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)
C1	50% of the course grade is determined by individual work that involves writing.	The list of required class work totaling 50% is on the CSE 486 syllabus under Individual Work. 1. Technical presentation (15%) 2. Project summary report (draft and final versions) (25%) 3. Professional responsibility essay (10%) This work is marked in pink and labeled C1 on the CSE486 syllabus.
C2	There are four assignments where students must research, gather evidence and reflect on the results.	All assignments require the students to research, gather information and evidence and then analyze the results. The technical presentation and professional responsibility essay require the students to research current and technical topics, gather evidence related to the topics and discuss the results. The project summary reports (draft and final) require the students to research the work done on their project, gather evidence and reflect on their own work as well as the work of their teammates. The assignments are marked in yellow and labeled C2 on the CSE486 Description of Student Work.
C3	There are four assignments of substantial size involving writing or speaking tasks.	All assignments are of a substantial size and involve writing and speaking. The type of work (writing or speaking) are marked in blue and labeled C3 on the CSE486 Description of Student Work.
C4	Feedback is provided on all work to allow for students to improve.	Feedback is provided on all assignments. In addition, feedback is provided on the draft version of the project summary report enabling students to improve performance on the final version of the report. The descriptions of the feedback are marked in green and labeled C4 on the CSE486 Description of Student Work.

CSE 486 Computer Science Capstone Project II

Dr. Debra Calliss
BYENG 524
debra.calliss@asu.edu

Catalog Description: Second course in capstone sequence for computer science majors continuing the development, process, technical skills, teamwork and communication.

Text: None

Organization: This class is organized as a hybrid course so work is divided between in-class, online and team work. Attendance is expected and participation counts toward your grade. In addition to the scheduled class meeting, you are to view online materials and complete all required assignments. You will work on a team in a development effort and are expected to commit 6-8 hours per week toward your team's deliverables. Your team is to meet at least once per week and, in addition, you are to meet with your project sponsor <u>at least once every two weeks</u>.

Work Breakdown:

Team Work Whenever possible, effort is made to differentiate your contribution from the other members of your team. This means that you may not receive the same grade as your teammates.
- Semester presentations 10%
- Meeting minutes 5%
- Results evaluation 25%

Note – The final team presentation is recorded for grading and documentation purposes.

Individual Work As this class is classified as Literacy and Critical Inquiry, 50% of your grade must be based on your individual work in oral and written communication.
- Technical presentation 15%
- Professional responsibility essay 10%
- Project summary report (draft and final version) 25%

C1

Exit Exam 10%

Class Policies:

Use of Phones, Computers and Other Electronic Devices
No electronic devices including cameras, laptops, tablets, and phones are to be used during class.

Academic Integrity You are expected to do your own work and act in a professional and ethical manner. **<u>Plagiarism or misrepresentation is not acceptable in any form.</u>**

CSE 486 Description of Student Work
Supplement to CSE 486 Syllabus

As indicated on the CSE 486 syllabus, 50% of the grade is earned from individual work. This document describes each of the assignments and evaluation of the work.

Technical presentation (Writing and Speaking, 15% of the grade)

C3

Description:

Each student is required to research a contemporary, technical topic related to computing and make a presentation to the class. The content must be of an adequate technical level for their peers to learn about the topic. This is not a tutorial or a sales presentation. The presentation cannot be taken from another class or another event.

The length of the presentation is 10 minutes, not including questions. No demonstrations or videos may be included.

Content must be organized in the ABC format but must include:

C2

1. Discussion of references
2. Overview of topic including its importance in the field of computing including an analysis of its impact
3. Motivation for choosing topic, what was learned by creating the presentation and what method was used to learn the material

Grading and Feedback:

Students are graded on delivery, preparation, technical content, slide creation, and timing.

Grading results and suggestions for improvement are provided by the instructor and anonymous peer evaluations. The feedback is returned to the students one week after the presentation. Also, this is the second semester in which students research, create and make a presentation and are provided feedback.

C4

Professional responsibility paper (Writing, 10% of the grade)

C3

Description:

Students are required to investigate a recent event involving computing ethics and the responsibilities of a computing professional. The assignment is to then write the findings and analysis in a paper of 4-5 pages in length.

C2

The topic of the paper may change with current events. The following is an example assignment given Spring 2015.

The objective of the professional responsibility paper is to consider all sides of an ethical issue related to the computing profession. The general theme of the paper is whistleblowing.

This is a formal paper (essay) and should be formatted appropriately. The paper should be 4-5 pages in length, 1.5-line spaced, and in a 12-point Times New Roman font. Use 1-inch margins all around. Do not use a title page. Instead, place your name, course number, and class time in the top right-hand corner of each page. Include references on an additional page (not included against the page limit) and format them using a standard citation format. Refer to the OWL site for specifications on formatting.

You will be graded on critical thinking, suitability of content, and writing style.

For this essay, select two examples of whistleblowing related to the computing. Be sure to address the following in your paper:
- What is whistleblowing?
- What harm may it cause?
- What benefits may it provide?
- Do you, as a computing professional, have a responsibility to whistle-blow?
- Is whistleblowing addressed in the professional code of ethics?
- Describe, compare, contrast, and discuss both your examples of whistleblowing related to the computing profession
- Would you characterize Edward Snowden as a whistleblower? Why or why not? Support your answer.

This is an individual assignment. Any work submitted must be your own. Violations of the ASU Academic Integrity Policy will not be tolerated. Your essay will be checked for plagiarism.

Grading and feedback:

Grading is done and feedback is provided to the students based on writing style and thoroughness of topic coverage.

C4

Project Summary Report (Writing, 25% of the grade)

C3

Description:

The students work in teams to develop a program or system over two semesters. Each student must write a summary report including an analysis of the work produced, design tradeoffs, technology decisions and the results of the project. Also included in the report is an analysis of the student's own contributions, lessons learned by the student as well as suggestions for his/her own improvement on both working with others and the production of work products. Additional content includes peer evaluations on the team members. The expected length of the report is 20-25 pages. The report is delivered in two versions: a draft (5%) and a final version (20%).

C2

Grading and feedback:

C4

The report is completed in two stages:
1. draft
2. final

Feedback is given on the draft version allowing each student to make improvements. Grading is done and feedback is given based on the completeness of the work submitted and the professionalism in presenting the content.